## DISCUSSION OF THE AMENDMENT

Due to the length of the specification herein, Applicants will cite to the paragraph number of the published patent application (PG Pub) of the present application, i.e., US 2006/0100323, when discussing the application description, both in this section and in the Remarks section, *infra*, rather than to page and line of the specification as filed.

The specification has been amended by deleting the superfluous reference to Claim 1.

Claim 1 has been amended by incorporating the subject matter of Claims 3 and 7 therein, except for the ionic liquid having structure 10. In addition, the superfluous term "at least one compound with plasticizing properties" has been deleted; the term --at least-- has been inserted before "semicrystalline polymer", as supported in the specification at paragraph [0001], thus confirming that the claims are intended to be inclusive of crystalline polymers also; the term --a polymer component comprising-- has been inserted in order to provide antecedent basis for an amendment to Claim 12, discussed *infra*; and the term --at least one-- has been inserted before "ionic liquid", as supported in the specification at paragraph [0029]. Claims 3 and 7 have been canceled. Claims 4 and 6 have been amended to clarify that the recited polymer(s) is with regard to the at least semicrystalline polymer of Claim 1. In addition, the term "at least one polymer blend" in Claim 6 has been deleted as superfluous. Claim 9 has been amended for style purposes only. Claim 12 has been amended to clarify that the difference in glass transition temperature is between the composition and the polymer component *per se*.

New Claims 28-33 have been added. Claims 28-32 are supported in the specification at paragraphs [0032], [0034], [0035], [0038], and [0040], respectively. Claim 33 is analogous to above-amended Claim 1, except that the ionic liquid of structure 10 is included, but polyether(ether)ketones are omitted.

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No new matter is believed to have been added by the above amendment. Claims 1, 2, 4-6 and 8-33 are now pending in the application. Of these claims, all are active except Claims 13-27.

## **REMARKS**

The rejection of Claims 1-12 under 35 U.S.C. § 103(a) as unpatentable over WO 01/44363 (Penning et al) in view of Scott et al, Application of ionic liquids as plasticizers for poly(methyl methacrylate), CHEM. COMMUN., 2002, 1370-1371 (Scott et al) or US 4,943,380 (Sugiura et al), is respectfully traversed.

Penning et al discloses a thermoplastic resin composition comprising a thermoplastic polymer resin and an additive selected from the group consisting of phosphonium sulfonate, anhydride and combinations thereof (page 2, lines 1-8) wherein polycarbonates, polyimides, amorphous polyamides, polysulfones, polyketones, polyphenylene sulfoxide and poly(phenylene sulfoxide) mixtures thereof are listed as applicable thermoplastic polymer resins (page 2, lines 10-19). Scott et al discloses the addition of 3-hexyloxymethyl-1-methylimidazolium tetrafluoroborate as a plasticizer for poly(methyl methacrylate) (PMMA). Sugiura et al discloses a synthetic resin selected from polycarbonate and PMMA and a heat-resistant antistat containing a particular phosphonium sulfonate.

The Examiner holds that it would have been obvious to incorporate the ionic liquids of Scott et al into the resin blends of Penning et al as plasticizers. The Examiner further relies on Sugiura et al as documenting that the phosphonium sulfonates of Penning et al provide heat resistance to polymer compositions.

In reply, the only disclosure of plasticizing with an ionic liquid is <u>Scott et al</u> and that is with regard to PMMA which, as Applicants describe in the specification herein at paragraph [0025], is an amorphous polymer. The presently-claimed invention, on the other hand, is drawn to polymer compositions comprising a semicrystalline or crystalline polymer component. Nor is it clear whether <u>Penning et al</u> is broad enough to encompass semicrystalline or crystalline polymers since Penning et al is explicit that their polyamides

<sup>&</sup>lt;sup>1</sup> It appears that page 1371 of <u>Scott et al</u> may have been omitted from the submission of <u>Scott et al</u> in the IDS with which it was filed. Accordingly, **submitted herewith** is a complete copy of <u>Scott et al</u>.

are amorphous. In any event, to the extent <u>Penning et al</u> is inclusive of semicrystalline or crystalline polymers, the Examiner has not shown that one of ordinary skill in the art would extend a disclosure for plasticizing an amorphous polymer, as in <u>Scott et al</u>, to semicrystalline or crystalline polymers. <u>Sugiura et al</u> discloses and suggests nothing with regard to ionic liquids for plasticizing semicrystalline or crystalline polymers.

For all the above reasons, it is respectfully requested that this rejection be withdrawn.

All of the presently-pending and active claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to rejoin non-elected claims of equal scope and in the absence of further grounds of rejection, pass this application to issue with all such claims.

Customer Number 22850

Tel: (703) 413-3000 Fax: (703) 413 -2220 (OSMMN 08/07) Respectfully submitted,

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

Norman F. Oblon

Harris A. Pitlick

Registration No. 38,779